1. To estimate the one-sided limit of the function below as x approaches 2 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{2}{x}-1}{x-2}$$

A. $\{1.9000, 1.9900, 1.9990, 1.9999\}$

B. $\{1.9000, 1.9900, 2.0100, 2.1000\}$

C. $\{2.1000, 2.0100, 2.0010, 2.0001\}$

D. $\{2.0000, 2.1000, 2.0100, 2.0010\}$

E. $\{2.0000, 1.9000, 1.9900, 1.9990\}$

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2. Based on the information below, which of the following statements is always true?

As x approaches 2, $f(x)$ approaches ∞.

A. $f(x)$ is close to or exactly 2 when x is large enough.

B. $f(x)$ is undefined when x is close to or exactly 2.

C. x is undefined when $f(x)$ is close to or exactly ∞.

D. $f(x)$ is close to or exactly ∞ when x is large enough.

E. None of the above are always true.

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3. To estimate the one-sided limit of the function below as x approaches 2 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{2}{x}-1}{x-2}$$

A. $\{1.9000, 1.9900, 1.9990, 1.9999\}$

B. $\{2.0000, 2.1000, 2.0100, 2.0010\}$

C. $\{2.0000, 1.9000, 1.9900, 1.9990\}$

D. $\{2.1000, 2.0100, 2.0010, 2.0001\}$

E. $\{1.9000, 1.9900, 2.0100, 2.1000\}$

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4. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to 2^-} \frac{-6}{(x+2)^3} + 2$$

A. ∞

B. $f(2)$

C. $-\infty$

D. The limit does not exist

E. None of the above

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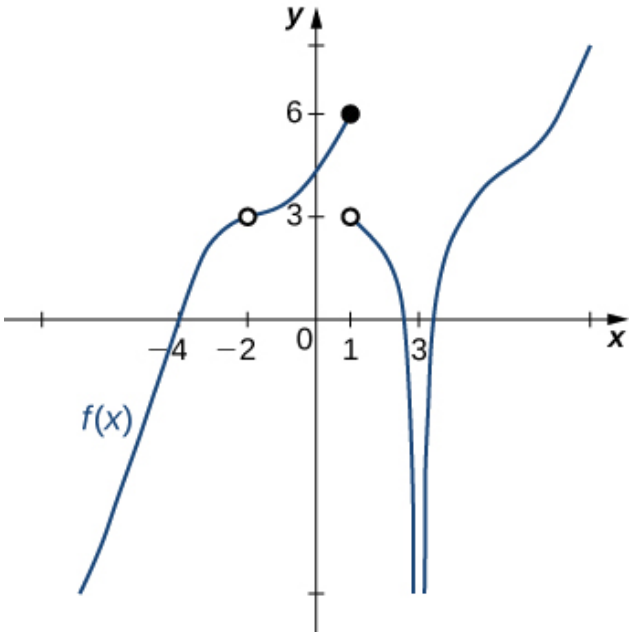
5. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x) = 3$.



A. -2

B. $-\infty$

C. 1

D. Multiple a make the statement true.

E. No a make the statement true.

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6. Based on the information below, which of the following statements is always true?

$$f(x) \text{ approaches } \infty \text{ as } x \text{ approaches } 4.$$

A. $f(x)$ is close to or exactly 4 when x is large enough.

B. x is undefined when $f(x)$ is close to or exactly ∞.

C. $f(x)$ is undefined when x is close to or exactly 4.

D. $f(x)$ is close to or exactly ∞ when x is large enough.

E. None of the above are always true.

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7. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \to -4^-} \frac{-9}{(x+4)^7} + 6$$

A. $-\infty$

B. $f(-4)$

C. ∞

D. The limit does not exist

E. None of the above

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8. Evaluate the limit below, if possible.

$$\lim_{x \to 8} \frac{\sqrt{5x-4} - 6}{3x - 24}$$

A. ∞

B. 0.028

C. 0.745

D. 0.083

E. None of the above

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9. Evaluate the limit below, if possible.

$$\lim_{x\to 7} \frac{\sqrt{5x-10}-5}{6x-42}$$

A. 0.017

B. 0.100

C. ∞

D. 0.373

E. None of the above

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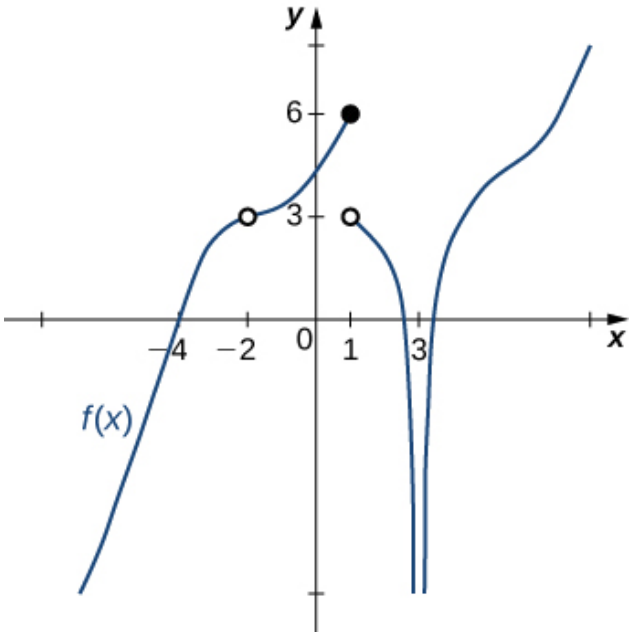
10. For the graph below, find the value(s) a that makes the statement true: $\lim_{x\to a} f(x) = -\infty$.



A. $-\infty$

B. 3

C. -2

D. Multiple a make the statement true.

E. No a make the statement true.
